

**PATENT APPLICATION OF
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FOR
PACKAGING MEANS**

BACKGROUND-FIELD OF INVENTION

The present invention relates generally to a package means for elongated members. More specifically the present invention is an easily mass-produced economical packaging for swab applicators.

BACKGROUND-DESCRIPTION OF RELATED ART

Swab applicator generally comprises of a tubular handle with a formed absorbent tip at one or both ends of the tubular handle. The absorbent tip may be made of cotton or a foam absorbent material. The tubular handle may be made of wood, paper, or plastic and it may be solid or hollow. A hollow tubular handle may also contain liquid or cream within its hollow interior.

Swab applicators have a variety of applications. Swab applicators are a convenient and sanitary means for applying and removing a variety of substances such as liquids, lotions, creams, and various chemicals and medications. Generally a wrapper made of paper, plastic, or aluminum foil is used to enclose the individual swab applicator to protect it from contamination. However, such wrapper offers virtually no structural support or protection from axial compression of the swab applicator within it.

Some swab applicators have piston-like designs that contain liquids or creams within their hollow tubular handle and will leak if they are axially compressed. Other small-elongated objects that should not be compressed axially also require protection from axial compression. Currently, there is virtually no economical and effective packaging to protect the swab applicators and the small-elongated objects from axial compression. A custom made and relatively costly packaging has to be designed and manufactured to protect the swab applicator or the small-elongated object from being axially compressed.

SUMMARY OF THE INVENTION

The present invention is an economical packaging means for elongated members such as swab applicators. The packaging means comprises of an elongated hollow tube housing slightly longer than the elongated member disposed within a sealed wrapper wherein the elongated member is disposed within the elongated hollow tube housing and protected from being axially compressed and contaminated.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 shows the preferred embodiment of the packaging means.

Figure 2 shows another embodiment of the packaging means.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Figure 1 shows the preferred embodiment of the present invention. In the preferred embodiment, the packaging means comprises of an elongated hollow tube housing 1 slightly longer than an elongated member such as a swab applicator 2. The elongated hollow tube housing 1 may be cut to predetermined length from generally available straws or hollow tubes. The swab applicator 2 is inserted completely into the elongated hollow tube housing 1. The elongated hollow tube housing 1 will completely enclose the length of the swab applicator 2 to resist axial compression.

The elongated hollow tube housing 1 with the enclosed swab applicator 2 is sealed within a protective covering 3 to prevent contamination of the swab applicator 2. The protective covering 3 may be made of paper, plastic, aluminum foil, or any other suitable material to prevent contamination of the swab applicator 2. The protective covering 3 may be provided with an opening means 4 to allow easy opening and removal of the protective covering 3 to allow access to the swab applicator 2. The opening means 4 may be a notch at an edge of the protective covering 3 to allow easy tearing of the protective covering 3.

The protective covering 3 provides a much larger printable area than on the elongated hollow tube housing 1 and the enclosed elongated member. The protective covering 3 also provides a completely sealed environment to protect the enclosed elongated member from

contaminations. Furthermore, the protective covering 3 uses existing packaging technology and merges it economically and easily with the present invention.

Figure 2 shows another embodiment of the packaging means. The packaging means comprises of an elongated hollow tube housing 1 with one end sealed 5 and is slightly longer than an elongated member such as a swab applicator 2. The elongated hollow tube housing 1 may be cut to predetermined length from generally available straws or hollow tubes. The swab applicator 2 is inserted completely into the elongated hollow tube housing 1. Preferably the end of the swab applicator 2 with the absorbent tip is inserted near the sealed end 5 of the elongated hollow tube housing 1. This will allow the swab applicator 2 to be removed only from the end without the absorbent tip. The elongated hollow tube housing 1 will completely enclose the length of the swab applicator 2 to resist axial compression.

The packaging means can be economically and easily mass-produced. The packaging means effectively and economically protects the swab applicator 2 from being compressed axially and contaminated. The swab applicator 2 may be easily removed for application by opening the protective covering 3 and sliding the swab applicator 2 out of the elongated hollow tube housing 1. The packaging means also allows rapid and economic individual feeding and packaging of the swab applicators 2.

Although the description above contains many specificities, these should not be construed as limiting the scope of the invention but as merely providing illustrations of some of the presently preferred embodiments of this invention. Thus the scope of the invention should be determined by the appended claims and their legal equivalents, rather than by the examples given.